

4. The Acts of Legislature bearing on the subject.

In connection with this report, a circular dealing with the very timely topic of rabies is presented.

It must be remembered that the preparation of these circulars involves a certain amount of labor, consisting principally of reading the regulations and procedure of other states and of foreign countries. In the case of smallpox certain experimental work was carried out, as was the case with poliomyelitis, and it is hoped to make practical application of the findings in the circulars. In consideration of these facts the board requests a certain amount of patience on the part of the health authorities.

REGULATIONS OF THE CALIFORNIA STATE BOARD OF HEALTH

for the Enforcement of

AN ACT TO PREVENT THE INTRODUCTION AND SPREAD OF RABIES.*

(Chapter 369, Statutes of 1913.)

Rule 1. Any person owning, or having the charge of, or observing any animal which he shall know or suspect to be affected with rabies shall immediately confine such animal, if this can be brought about with reasonable safety, and shall at once give notice to the local health authority of the whereabouts of such animal and the reasons for believing it to be affected with rabies.

Note: The diagnosis of rabies may be difficult and may require the judgment of an experienced physician or veterinarian, but any of the following symptoms should be considered as sufficient evidence for suspecting rabies and reporting the animal, under the provisions of this rule, for further investigation.

1. Sudden change in disposition.
2. Unusual nervousness or irritability.
3. Tendency to leave home.
4. Change in voice.
5. Refusal to eat.
6. Tendency to snap or bite without provocation.
7. Weakness or paralysis of the legs or lower jaw.

Rule 2. Every local health authority upon receiving information of the existence of rabies must immediately make an investigation and within twenty-four hours thereafter must report fully in writing to the State Board of Health, except as provided in Rule 4.

Rule 3. Animals confined under suspicion of having rabies shall be kept under proper care and observation and shall not be killed or released until ten days shall have elapsed dating from the beginning of the confinement. If the animal dies or has been killed under suspicion of having rabies, its head shall be removed and shall be sent to the state or municipal laboratory for examination.

Note: See appended directions for sending specimens to the laboratory.

Rule 4. When the State Board of Health shall declare a quarantine against certain designated animals within a specified area, on account of the existence of rabies, all such animals within such

area shall be kept in strict confinement upon the private premises of the owners under restraint by leash or closed cage or paddock. In areas already under quarantine, or special regulations substituted for quarantine (Chapter 369, Sec. 2, Statutes of 1913), the provisions of Rule 3 may be abridged or modified at the discretion of the local health authority and the reports required in Rule 2 may be made monthly, unless the State Board of Health shall specify to the contrary.

Note: Specified areas, districts, subdivisions, and similar terms in these rules, do not necessarily follow city or county lines, but refer to areas whose boundaries are determined by the extent of the infection and the territory endangered thereby. By declaration of quarantine is meant the formal notice that a given area is placed under quarantine for rabies by the state board of health. This notice will be sent by letter or telegraph to the local health authority, who will proceed as an agent of the state board of health to enforce the provisions of the law.

Rule 5. If the State Board of Health, after the establishment of quarantine, substitutes for Rule 4 such regulations as may be deemed adequate (Sec. 2, Chapter 369, Statutes of 1913), failure to enforce such substitute regulations strictly will be followed by a return to the enforcement of the full regulations of quarantine (See Rule 4) or such changes in the regulations as may be deemed advisable by the State Board of Health.

Note: Regulations, substituted for quarantine, will be based on the special conditions in the area under consideration, and will be determined by the state board of health in conference with the local health authority.

The following illustrates measures which may be incorporated, singly or in combination, in regulations adopted for enforcement under this rule:

1. Restriction of dogs to enclosed premises of owner, and appearance on street under leash, provided they are not taken upon public conveyances.
2. Permission for dogs to run at large if wearing a muzzle of approved type.
3. Exemption of dogs from muzzling requirement while engaged in hunting or herding under supervision.
4. Extension of this exemption to all dogs in a specified subdivision of the area under regulation, provided that these dogs are not taken out of this subdivision.

Rule 6. Quarantine and regulations substituted for quarantine together must cover a continuous period of six months before the State Board of Health will consider release from quarantine or from substituted regulations.

Note: The period of six months has been designated because this length of time covers the incubation period for practically all cases of rabies.

The state board of health will not make a quarantine order when it appears on investigation that the infection is strictly limited to the animal exhibiting the disease, and all contacts are under control.

Rule 7. When an area has been declared by the State Board of Health to be under quarantine, or regulations substituted for quarantine, on account of rabies, no dog shall be taken, or allowed to go, into or out of such area, except upon presentation of a written permit from the Secretary of the State Board of Health, or a representative authorized by the State Board of Health to issue

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permits under certain conditions prescribed by the Board.

Note: The permit specified in Rule 7 will ordinarily be issued for animals from uninfected areas and for animals brought in for temporary exhibition purposes in theaters, bench shows, etc., provided these latter animals are kept segregated from other animals in the area.

Rule 8. It is the duty of all peace officers and local health authorities to enforce the requirements of the quarantine or regulations declared by the State Board of Health (See Sections 3, 4 and 5, Chapter 369, Statutes of 1913, which Act of the legislature will be found printed in full in this circular).

Rule 9. During such time as the quarantine, declared by the State Board of Health or the regulations substituted by the Board, shall be in force in an area, each treasurer of a county, city and county, or incorporated city or town, situated in whole or in part in the area specified, will be expected to make a monthly report to the State Board of Health, stating the methods and amounts of the collections and disbursements of the moneys of the rabies treatment and eradication fund, and the total amount of money on hand in the fund. (See Sections 6 and 7, Chapter 369, Statutes of 1913, regarding the establishment of the fund.)

GENERAL DIRECTIONS.

Directions for Sending Material to the State Hygienic Laboratory for Examination for Rabies.

Where possible, the animal suspected of having rabies should be confined and kept under observation until it dies. If it is killed in an early stage of the disease, diagnosis from microscopic examination is apt to be difficult, and results are delayed by the necessity for other tests. A rabid animal generally dies within six days. If the animal is well at the end of ten days, rabies may be excluded and examination of the brain is not necessary.

If it is necessary to kill a rabid animal, it should not be shot or injured in the head. The brain is the part required for examination, and injury to it makes diagnosis difficult or impossible.

After the death of the animal, the head should be removed by cutting through the neck far enough back to leave the skull intact. Care should be taken not to cut or lacerate the hands during the operation.

Pack the entire head in ice in a metal container, e. g., a tin pail or can. An excellent method of packing is to place in a large tin pail or can a layer of sawdust or shavings, a layer of ice, and then the head. Cover with an abundant layer of ice and add a top layer of sawdust. A suitable metal cover should be soldered in place so that there is no possibility of the escape of liquids or odors in the express car. Mark plainly, giving the name of the shipper. Send by express, without delay, to the State Hygienic Laboratory, Berkeley, California. Express charges must be prepaid.

A letter describing in detail the local situation with regard to rabies will be appreciated.

The following blank is furnished by the laboratory. If it is not at hand, write a letter giving the data indicated:

CALIFORNIA STATE BOARD OF HEALTH, State Hygienic Laboratory, Berkeley.

Please fill out this side of blank in full, and send with specimen to laboratory.

Material for Examination for Rabies.

Sender's name.....Address.....
Health Officer's name.....Address.....
Name of owner of animal.....Address.....
Description of animal whose head is sent.....
Where was the animal found?.....
Was animal killed or allowed to die?.....
How long sick?.....
Diagnosis from symptoms.....
What other animals were bitten by this one?.....
What human beings were bitten?.....
Is report to be sent by telegraph (collect), telephone (collect) or mail?.....
To whom?.....

Directions Regarding the Pasteur Treatment for the Prevention of Rabies.

If a person has been bitten by a rabid animal, it is recommended that the wound be cauterized immediately by the nearest physician, preferably with nitric acid. Arrangements should then be made at once for the Pasteur treatment for the prevention of rabies.

Persons who are able to pay for treatment without undue hardship should arrange with their physicians to have the necessary material purchased and administered. The antirabic virus manufactured by the State Board of Health is not for sale, and is not sent out to physicians.

Each person who is in need of the Pasteur antirabic treatment and is unable to pay the expense connected with private treatment without undue hardship, should report immediately to the local health authority or, if this is not possible, to a private physician. If treatment by the State Board of Health is recommended, the following blanks should be signed by the appropriate persons and should be given to the patient to be presented at the State Hygienic Laboratory, or one of its branches, or a municipal laboratory where the free state treatment is being administered.

APPLICATION TO THE CALIFORNIA STATE BOARD OF HEALTH FOR THE PASTEUR TREATMENT FOR THE PREVENTION OF RABIES.

Application of Patient or Parent or Guardian.

I hereby apply to the California State Board of Health for the Pasteur treatment for the prevention of rabies, and declare that it would be a hardship for me to pay for the treatment at the usual rates.

.....
Patient, Parent, or Guardian.

Statement of Local Health Authority or Physician.

The following named person has reported to me regarding the need for antirabic treatment by the State Board of Health:

.....

I have examined the wounds and have inquired into the circumstances, and I believe that there is a possibility that the above-named person has been infected with the virus of rabies.

Date.....

.....
Local Health Authority, or Physician.

This part of the blank should be filled out, torn off at the line, and mailed at once by the local health authority or physician to that branch of the laboratory to which the patient is sent.

I have to-day directed the following person to

apply at once to the.....laboratory for
antirabic treatment by the State Board of Health.
Name of Patient.....
Remarks:
Date.....

Local Health Authority, or Physician.

The patient should go as soon as possible to the nearest branch of the State Hygienic Laboratory and should present the written statements of himself and the local health authority or physician to the director. If the director of the laboratory agrees that treatment is advisable the Pasteur treatment will be administered without charge. Persons taking the treatment at state expense must defray their own living expenses while boarding near the laboratory. If funds for this purpose are not available, the local health authority will advise as to the proper procedure.

The following cities have arranged for the administration of the state antirabic virus to their citizens at the laboratories of their health departments: San Francisco, Los Angeles, and Sacramento.

Citizens from other parts of California are treated at the nearest one of the following branches unless there is special reason for transferring patients from one laboratory to another.

The State Hygienic Laboratory, Hygiene and Pathology Building, University of California, Berkeley.

The Northern California Branch of the State Hygienic Laboratory, 406 Inverness Building, Sacramento.

The San Joaquin Valley Branch of the State Hygienic Laboratory, 32 Patterson Block, Fresno.

The Southern California Branch of the State Hygienic Laboratory, 423 Auditorium Building, Los Angeles.

If a local health authority learns that persons have been bitten by a rabid animal, inquiry should be made to find out whether they have come under treatment. If they have not done so, the risk of developing rabies and the seriousness of the disease should be explained to them. If they still fail to come under treatment, a statement of the circumstances should be written and sent to the Secretary of the State Board of Health.

STATE LAWS.

Chapter 369. (Statutes of 1913.)

An Act to prevent the introduction of rabies or other animal diseases dangerous to human beings, into portions of the state not infected; to control the spread of such diseases after introduction; and authorizing the state board of health to make rules and regulations therefor.

(Approved June 13, 1913.)

The people of the State of California do enact as follows:

Section 1. Whenever any case or cases of rabies, or other animal diseases dangerous to the health of human beings which may be declared by the state board of health as coming under the provisions of this act, shall be reported as existing in any county, city and county, or incorporated city or town in the State of California, the state board of health shall make, or cause to be made a preliminary investigation as to whether such disease does exist, and as to the probable area of the state

in which the population or animals are thereby endangered. If upon such examination the state board of health shall find that any of the said diseases does exist, a quarantine shall be declared against all such animals as may be designated in the quarantine order, and living within the area specified in said order. Quarantine shall be defined for the purposes of this act as meaning the strict confinement, upon the private premises of the owners under restraint by leash or closed cage or paddock, of all animals specified by the order.

Sec. 2. Following the order of quarantine the state board of health shall make or cause to be made a thorough investigation as to the extent of the disease, the probable number of persons and animals exposed, and the area found to be involved; and may substitute for the quarantine order such regulations as may be deemed adequate for the control of the disease in each area.

Sec. 3. It shall be the duty of all peace officers and boards of health to carry out the provisions of this act. During the period for which any quarantine order is in force all officers are empowered to kill or in their discretion to capture and hold for further action by the state board of health or its representatives, all animals in a quarantine area, found on public highways, lands and streets, or not held in restraint on private premises as specified in this act.

Sec. 4. All proper officials within the meaning of this act are hereby authorized to examine and enter upon all private premises for the enforcement of this act.

Sec. 5. Any owner, or other person in the possession of any animal then being held or maintained in violation of the provisions of this act, shall be subject to arrest on the charge of committing a misdemeanor.

Sec. 6. For the purpose of providing funds to pay the expenses incurred in connection with the eradication of diseases included under this act, a special fund, to be known as the rabies treatment and eradication fund, is hereby created for each county, city and county, or incorporated city or town in the State of California. All moneys collected in accordance with the following procedure shall be deposited to the credit of this fund with the treasurer of the county, city and county, or incorporated city or town; provided, that funds now collected from any dog tax may continue to be collected and used for other purposes specified by local ordinances.

(a) Upon the determination by the state board of health that rabies does exist in any county, city and county, or incorporated city or town, a special dog license tax shall immediately become effective, unless a dog tax is already in force the funds from which are available for the payment of expenditures in accordance with the provisions of this act. This tax shall be levied as follows: An annual tax of one dollar and fifty cents for each male, two dollars and fifty cents for each female, and one dollar and fifty cents for each neuter dog, the same to be collected by the proper authority at the same time and in the same manner as other taxes are collected; provided, however, that there shall be collected at the first collection such proportion of the annual tax as corresponds to the number of months the tax has been in operation plus one year advance payment. After this dog license tax has been established in a county, city and county, or incorporated city or town, it shall be continued in force until an order has been issued by the state board of health declaring that county, or such portion of that county as may be deemed advisable, to be free from rabies or further danger of its spread.

(b) One-half of all fines collected by any court or judge for violations of the provisions of this act

shall be placed to the credit of the rabies treatment and eradication fund of the county, city and county, incorporated city or town in which the violation occurred.

Sec. 7. Whenever it becomes necessary in the judgment of the State Board of Health or its secretary, to enforce the provisions of this act in any county, city and county, or incorporated city or town, the said board or its secretary may institute special measures of control to supplement the efforts of the local authorities in any county, city and county, or incorporated city or town whose duties are specified in this act. All expenditures incurred in enforcing such special measures shall be proper charges against the special fund created by the provisions of this act, and shall be paid as they accrue by the proper authorities of each county, city and county, or incorporated city or town in which they have been incurred; provided, that all such expenditures which may be incurred after the issuance of the order establishing the said fund and before the first collection of the tax, shall be paid as they accrue from the general fund of the county, city and county, or incorporated city and town; And, Provided, Further, that all expenditures in excess of the balance of money in this fund shall likewise be paid as they accrue from said general fund. All moneys thus expended from the general fund shall be repaid from the said special fund when the collections from said tax have been provided the money.

Chapter 391 (Statutes of 1913).

An act to authorize the State Board of Health to purchase, or prepare, and distribute, free of cost to certain persons, anti-rabic virus, and making an appropriation therefor.

(Approved June 13, 1913).

The people of the State of California do enact as follows:

Section 1. The State Board of Health is hereby empowered and directed to purchase, or prepare, and distribute free of cost, under such regulations as may be necessary, anti-rabic virus to be used in the treatment of persons exposed to rabies when said persons shall declare that it would be a hardship for them to pay for anti-rabic treatment.

Sec. 2. The sum of five thousand dollars is hereby appropriated for the purposes of this act.

Sec. 3. The state controller is hereby authorized to draw his warrant for the same, and the state treasurer is hereby authorized to pay the same.

ADMINISTRATIVE MEASURES FOR THE CONTROL OF SCARLET FEVER.*

By J. J. BENTON, M. D., Health Officer, Berkeley.

The conservation of the health of the community as a whole and the prevention of the spread of disease to the general public constitute the principal functions of the health officer. In dealing with the latter problem his administrative methods for control thereof will, of necessity, vary according as the specific disease falls within one or the other of the two great divisions of infectious or contagious diseases viz: those the etiology and mode of transmission of which have been scientifically proven, and secondly, those whose causation and propagation have not been conclusively demonstrated. In the first category fall such diseases as diphtheria, plague, tuberculosis, typhoid fever, tetanus, yellow fever, malaria, rabies, etc.; while in the second are to be placed scarlet fever, measles, German measles, whooping cough, mumps, etc.

In dealing with the former class of diseases, science has placed at our hands the means of determining the presence of the disease, e. g., by cultural methods in diphtheria, the Widal reaction in typhoid fever and the presence of the specific organism in tuberculosis, plague, tetanus, malaria, etc.; as well as giving the means of preventing their spread, i. e., eliminating carriers—e. g., two negative cultures in diphtheria; extermination of typhoid bacilli in stools and urine; destruction of fleas for plague, mosquitoes for malaria and yellow fever, etc.

On the other hand, in dealing with the second class of infectious diseases—those in which the etiology and mode of transmission have not been scientifically proven—we should be very conservative in our methods and be sure of our ground before accepting new policies.

The most important of these diseases both because of the very serious complications and sequelae to which it gives rise, as well as of the fact that it is the only one of the group in which isolation is enjoined, is scarlet fever.

Of the causation of scarlet fever we are as much in the dark as were our forefathers, but as regards its mode of transmission we have made considerable advance. Formerly, of course, it was universally agreed that this disease was transmitted through the scales, but it has been practically proven that if scales be macerated and then injected into the higher monkeys (who are susceptible to the disease) that the disease does not develop. Whereas, if they, or man, be exposed to the secretions of the nose and throat or discharges from glands or ear, the disease will then develop. Upon this hypothesis there has been a great tendency on the part of physicians to clamor for a material shortening of the period of isolation in scarlet fever, reasoning that as the nasal and pharyngeal discharges have disappeared in the majority of cases within two weeks, it works an unnecessary hardship upon the quarantined individual and his family to continue the isolation longer. My contention has been that so long as we do not know the specific cause of the disease, nor the life cycle of said cause, it is the duty of the health officer to always have an eye single to the protection of the community as a whole from disease, even though this may entail discomfort or even loss to the quarantined individual or his family. Hence I have always insisted upon a minimum isolation of thirty days and I believe my experience in Berkeley has amply justified my action. As an illustration I will cite an epidemic of scarlet fever which broke out in the State Deaf, Dumb and Blind Institute last spring. After some twenty-nine cases had appeared and from four to ten new cases were being reported weekly, investigation showed that the children were only kept in the hospital until the throat symptoms had subsided, usually ten to fourteen days, and were then allowed to return to the classroom and that this accounted for so many "return cases." I thereupon applied to the new attorney for the State Board of Health regarding my jurisdiction as local health officer over the

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